Visual Assessment

New Jersey Department of Environmental Protection
Division of Watershed Management

General Sheet

Segment ID #: _____ **Assessment # of the year:** _____

Stream Name: _____ **Watershed Management Area:** _____

Municipal Code(s): _____

Segment Identification

Beginning at Latitude/Longitude: _____

Ending at Latitude/Longitude: _____

Survey Team: _____ **Time:** _____

_____ **Date:** _____

Weather: 1. Clear 2. Overcast 3. Light rain/Showers 4. Steady Rain 5. Heavy Rain 6. Snow 7. Heavy Snow Melt

Today	Last 48 Hours	Past Week

Days since last rain: _____

Air Temperature: _____ ° F

Site Sketch: includes riffles, pools, runs, ditches, riprap, outfalls, roads, sampling, locations, photo reference #, GPS reference #'s

Monitoring Sheet

right and left stream bank facing upstream

1. Stream Width		**For Non-Wadable Streams**: 1. Constant 2. Widening 3. Mild constrictions 4. Sharp constriction **For Wadable Streams**: Stream Width average _____ (ft)			
2. Stream Velocity		Velocity average in feet per second (divide the average time by 10)			
3. Stream Depth / Velocity Combinations		1. Slow, deep 2. Fast, deep 3. Fast, shallow			
4. Stream Sinuosity		1. Straight – natural 2. Straight – channelized 3. Slight bends 4. Moderate bends 5. Sharp bends (oxbows)			
5. Stream Flows		1. Slow 2. Moderate 3. Swift 4. Combination			
6. Pools & Riffles		1. None present 2. Present			
7. Stream Substrate		1. Fine particles (silt, clay, mud) 2. Sand 3. Gravel 4. Cobble 5. Boulder 6. Bedrock 7. Other			
8. Stream Substrate		1. Loose 2. Stable			
9. Embeddedness (Gravel, Cobble, & Boulders)		1. 0 – 25% surrounded by fine sediment 2. 26 – 50% surrounded by fine sediment 3. 51 – 75% surrounded by fine sediment 4. Greater than 75% surrounded by fine sediment			
10. Sediment on Stream Bottom		1. None 2. Light 3. Moderate 4. Severe			
11. Bank Stability	Right Bank Left Bank	1. Stable, evidence of erosion or bank failure absent or minimal; <5% of bank affected 2. Moderately Stable, small areas of erosion, mostly healed over; <5 – 30% of bank in reach has areas of erosion 3. Moderately Unstable; 31 – 60% of bank in reach has areas of erosion, high erosion potential during flooding 4. Unstable, many eroded areas, "raw" areas frequent; obvious bank sloughing; 60% or > of bank erosional scars			
12. % of Tree Canopy Above Stream		1. 0 – 25% 2. 26 – 50% 3. 51 – 75% 4. 76 – 100%			
13. Riparian Vegetation	Right Bank Left Bank	1. > 50 ft. width 2. 35 – 50 ft. width 3. 15 – 35 ft. width 4. < 15 ft. width			
14. Woody Debris		1. None 2. In spots 3. Heavy throughout reach			
15. Woody Debris		1. Free floating 2. Attached			
16. Predominant Aquatic Vegetation		1. Rooted emergent 2. Rooted submergent 3. Rooted floating 4. Free floating			
17. Algae Location		1. None 2. On streambed 3. On surface 4. Both			
18. Algae Color		1. Light green 2. Dark green 3. Brown 4. Other			
19. Channel Alteration		1. Stream with normal pattern 2. Some channelization present, usually in areas of bridges, etc… 3. Channelization extensive, 40 – 80% of the stream reach 4. Over 80% of the stream channelized, gabion baskets and/or riprap, and/or concert present			
20. Structures	Bridges		Culverts	Dams	Other

21. Water Conditions		
Odor:		1. Normal 2. Sewage 3. Petroleum 4. Chemical 5. Anaerobic 6. Other
Color:		1. Clear 2. Tea 3. Milky 4. Muddy 5. Other
Surface Coating		1. None 2. Oily 3. Foam 4. Scum 5. Other

Observations: (indicate locations on map)

Photo Reference #'s

GPS Reference #'s

Assessment Sheet

Streamside Land Use – 1. If Present 2. Clearly Impacting Stream				
	Within 50 ft. of top of bank		**Within ¼ mile of site**	
	Left Bank	**Right Bank**	**Left Bank**	**Right Bank**
1. Residential single-family housing				
2. Residential multifamily housing				
3. Residential Lawns				
4. Residential Pets				
5. Commercial / Institutional				
6. Commercial / Institutional Lawns				
7. Roads Paved				
8. Roads Unpaved				
9. Construction Underway For:				
Housing Development				
Commercial				
Road / Bridge Construction Repair				
13. Agricultural Grazing Land				
14. Agricultural Feed Lots / Animal Holding Areas				
15. Agricultural Cropland				
16. Inactive Agricultural Land / Fields				
17. Recreational Power Boating				
18. Recreational Golfing				
19. Recreational Camping				
20. Recreational Swimming / Fishing / Canoeing				
21. Recreational Hiking / Paths				
22. Waterfowl (with approximate #)				
23. Pet Waste				
24. Industrial				
25. Other				

Observations: (indicate locations on map)

Photo Reference #'s

GPS Reference #'s

Pipe & Drainage Ditch Inventory *(fill out one sheet for each one)*

Outfall Pipe Reference # _____ **Pipe Diameter: _____** in. or ft.

Type: _____ 1. Storm drain 2. Residential discharge 3. Industrial Discharge (NJPDES # _____)
4. Combined sewer overflow 5. Other

Pipe Material: _____ 1. Concrete 2. Steel 3. PVC 4. Clay 5. Other _____

Pipe Location: _____ 1. In stream 2. In stream bank 3. Near stream

Pipe Flow: _____ 1. None 2. Trickle 3. Intermittent 4. Steady 5. Heavy

Flow Appearance: _____ 1. None 2. Trickle 3. Intermittent 4. Steady 5. Heavy

Flow Color: _____

Is streambank at outfall eroded? _____

Stream channel downstream**: _____** 1. Stable 2. Eroded

Drainage Ditch # _____ 1. Unknown 2. Outfall pipe 3. Parking Lot 4. Settlement Basin / Pond
5. Agricultural field 6. Livestock Operation

Begins At: _____

Ditch Lining: _____ 1. Stone 2. Vegetation 3. Concrete **Ditch Is: _____** 1. Stable 2. Eroding

Ditch Flow: _____ 1. None 2. Intermittent 3. Steady

Flow Appearance: _____ 1. Clear 2. Turbid 3. Oily 4. Foamy 5. Colored _____

Stream channel downstream**: _____** 1. Stable 2. Eroded

Observations: (indicate locations on map)

_____

_____

_____

_____

_____

Photo Reference #'s

_____

_____

_____

GPS Reference #'s